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DRAWINGS ATTACHED.

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COMPLETE SPECIFICATION.

Improvements in or relating to Cigarette-Like Tobacco-Smoking Devices.

I, JAMES NOEL-DAVIES, British nationality, of Le Mans, Holyhead Road, Gobowen, in the County of Shropshire, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to cigarette-like tobacco-smoking devices.

A cigarette as conventionally manufactured comprises a tube of paper which encloses a quantity of tobacco and, in some cases, a filter wad, and in the smoking of same the paper tube is combusted with the tobacco and the total products of combustion are inhaled by the smoker.

It is thought that the burning of the paper provides an additional irritant which may well be contributory towards the high incidence of respiratory diseases among cigarette smokers, and the present invention has for its primary object to provide a cigarette-like tobacco-smoking device which obviates, or substantially so, the necessity for the combustion of paper.

A further object is to provide a cigarette-like tobacco-smoking device having a construction which enables a smoker to have a measure of control over the rate of combustion of the tobacco thereby permitting economical smoking, which aids in preventing the fingers becoming objectionably stained during smoking, and whereby the risk of fire due to carelessness on the part of the smoker is minimised.

Broadly, a cigarette-like tobacco-smoking device according to the invention comprises a tobacco holding tube of any suitable cross-sectional shape and composed of thin cardboard, or of paper, the forward end at least whereof is provided on one or both surfaces with a substance or material resis-

tant to burning, a charge of tobacco filling part of the interior thereof, and a mouthpiece tube engaged and axially displaceable within the unfilled rear end of said holder tube.

It will be seen that when the mouthpiece tube is held between the lips the tobacco in the tobacco-holding tube may be ignited and smoked in conventional cigarette fashion provided it is projected as required from the holder-tube as it is burned in order to admit thereto sufficient air for combustion, and this without any paper being burned with the tobacco. Further, the rate of combustion can be controlled by varying the rate at which the tobacco is projected from the tube and this provides a safety factor inasmuch as a cigarette which is left untended will be extinguished automatically when the tobacco burns down below the outer end of the holder-tube. It is to be noted that my smoking device is not, in any form, intended to retain or hold the tobacco ash formed or produced during smoking.

If desired said mouthpiece tube may be associated with the tobacco-holding tube by a screw-thread or screw-thread elements or other means whereby rotary movement of the mouthpiece tube will cause its movement in an axial direction within the tobacco-holding tube. Means may be provided for preventing complete disassociation of the two parts.

In experimental practice, stout paper protected on one or both sides by metallic foil, for part of its length has been found satisfactory for the tobacco-holding tube, the foil providing the required resistance to burning and the paper thermal insulation properties.

The tobacco may be inserted in its tube during manufacture by conventional cigarette rod making or other methods with or with-

out suitable modification or the tube may be filled subsequent to its formation, the important factor in the filling being that the tobacco charge is of such density and so packed within the tube that the device may be "drawn" during smoking without difficulty and appropriate feeding forward of the tobacco may be achieved simply by, say, a light thumb pressure on the mouthpiece tube as the device is held in conventional cigarette fashion between the first and second finger of the hand. The tobacco may be retracted by pulling back the mouthpiece tube and tapping or stubbing the tobacco back into the holder-tube, or means may be provided for attaching the tobacco to the mouthpiece tube.

The tobacco charge or rod may be treated as by spraying or rolling with a suitable binder, e.g. Gum Tragacanth, as used in cigar manufacture or Gum Acacia, so as to impart a certain degree of rigidity to the tobacco and facilitate its displacement within the holder-tube. Said binder substance may be dispersed throughout the tobacco charge or consist merely of a surface application and in some instances may function to cause adhesion of the charge to the inner end of the mouthpiece tube thereby to enable retraction as well as projection of the tobacco. In this connection I am aware of the Customs and Excise Act, 1952 (15 and 16 Geo. 6 and 1 Eliz. 2, Ch. 44) and I make no claim to use the invention in contravention of any of the provisions of the Act.

If a filter element is provided this may be fitted in the mouthpiece, or be located at the rear of the tobacco in the holder-tube, or both, if so desired.

The invention is further described with the aid of the accompanying drawings which illustrate by way of example only two modes of embodiment.

In said drawings:—

Fig. 1 is a longitudinal section of one form of tobacco smoking device; and

Fig. 2 is a cross-section taken as on line A—A of Fig. 1;

Fig. 3 is a longitudinal section similar to that of Fig. 1 but incorporating a modification and showing the tobacco partly consumed.

Referring now to Figs. 1 and 2 of said drawings, *a* denotes a tobacco-holding tube, in this instance of circular cross-section but which may be of any other suitable cross-sectional shape, wherein is located a rod-like charge of tobacco *b* which conforms to the cross-sectional shape of the tube and fills approximately three quarters of the interior thereof. Slidably engaged in the non-filled end of holder-tube *a* is a mouthpiece consisting of a tube *c* wherein is provided a filter element or wad *d*. As shown, the filter element occupies only a small part of the

tube *c* but if desired it may completely fill same.

Tube *a* is composed of thin cardboard or stout paper which is rendered resistant to burning or charring by means of metallic foil *e* which extends internally for approximately half the length thereof and externally for a shorter distance.

In use, the tube *c*, in addition to functioning as a mouthpiece, constitutes a plunger or pusher whereby the tobacco charge *b* is caused to protrude a sufficient distance from the front of the tube *a* to permit of it being ignited in conventional manner for smoking in cigarette fashion. The rate of combustion of the tobacco *b* can be controlled by the rate at which it is caused to progress along the tube and obtain air for burning. If the tobacco is not progressively advanced along the tube *a* then it burns down within the tube and, eventually, being starved of air becomes extinguished. Thus the risk of fire by neglect is minimised. To enable controlled retraction of the tobacco within tube *a* the tobacco may be treated with a binder as before referred to and the inner end of mouthpiece *c* may be provided with projections or fingers for engaging such treated tobacco. Alternatively the tobacco may be caused to adhere to said mouthpiece *c* by means for example of the binder used to treat the tobacco.

In Fig. 3 tube *c* is shown formed or provided with a lateral projection *c*¹ which is engaged and co-operates with a helical groove *a*¹ pressed or otherwise formed in the wall of holder-tube *a*. Thus constructed, rotary movement of the mouthpiece tube *c* will cause its advancement (or retraction) within the tube *a* and therefore controlled displacement of the tobacco *b*.

WHAT I CLAIM IS:—

1. A cigarette-like tobacco-smoking device comprising a tobacco holding tube of any suitable cross-section and composed of this cardboard, or of paper, the forward end at least whereof is provided on one or both surfaces with a substance or material resistant to burning, a charge of tobacco filling part of the interior thereof, and a mouthpiece tube engaged and axially displaceable within the unfilled rear end of said holder tube.

2. A cigarette-like tobacco-smoking device as claimed in the preceding claim wherein said mouthpiece tube is provided with a filter element or wad.

3. A cigarette-like tobacco-smoking device as claimed in either of the preceding claims, wherein the tobacco charge of the tobacco-holding tube has been treated with a binder material or substance which imparts to said tobacco a degree of rigidity whereby its displacement within the tobacco-holding tube is facilitated.

4. A cigarette-like tobacco-smoking device as claimed in Claim 3, wherein said tobacco charge is adhesively or otherwise associated with the inner end of the mouth-
5 piece tube so as to facilitate retraction of the tobacco.

5. A cigarette-like tobacco-smoking device as claimed in any of the preceding claims, wherein said mouthpiece and
10 tobacco-holding tubes are formed with co-operating screw-threads or screw-thread elements or the like, whereby rotary movement of one part relatively of the other causes advancement or retraction, accord-
15 ing to the direction of rotation, of the mouth-piece within the tobacco-holding tube.

6. A cigarette-like tobacco-smoking device as claimed in any of the preceding claims wherein the forward end of said

tobacco-holding tube is provided on one or
20 both surfaces with metallic foil.

7. A cigarette-like tobacco-smoking device substantially as hereinbefore described with reference to Figs 1 and 2 of the accom-
25 panying drawings.

8. A cigarette-like tobacco-smoking device substantially as hereinbefore described with reference to Fig. 3 of the accom-
panying drawings.

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